
Sissejuhatus infotehnoloogiasse

ajalugu 1989-2005

Siin **esimene osa**:

teine ja kolmas osa on teistes powerpointides

1989-90: Rahvusvaheline võrguots Eestis: FIDONET

- 1989 detsembri lõpus panid Andrus Suitsu ja Tarmo Soodla käima Opus-e nimelise P.O.Box-i.
- 1990 aasta kevadel lülitus Eesti **FIDONET** Soome kaudu ülemaailmsesse FIDO-võrku, ning sama aasta sügiseks oli Eestis juba sedavõrd palju FIDONET-i huvilisi, et Eesti sai omaette FidoNeti regiooni staatuse (R49).



1989: Python programming language

- Python implementation was started in 1989 by Guido van Rossum at CWI in the Netherlands as a successor to the ABC programming language (itself inspired by SETL).
- Python 2.0 was released in 2000, with many major new features including a full garbage collector and support for Unicode.
- Python 3.0, a major, backwards-incompatible release, was released in 2008



1990: HTML, http and the browser are born

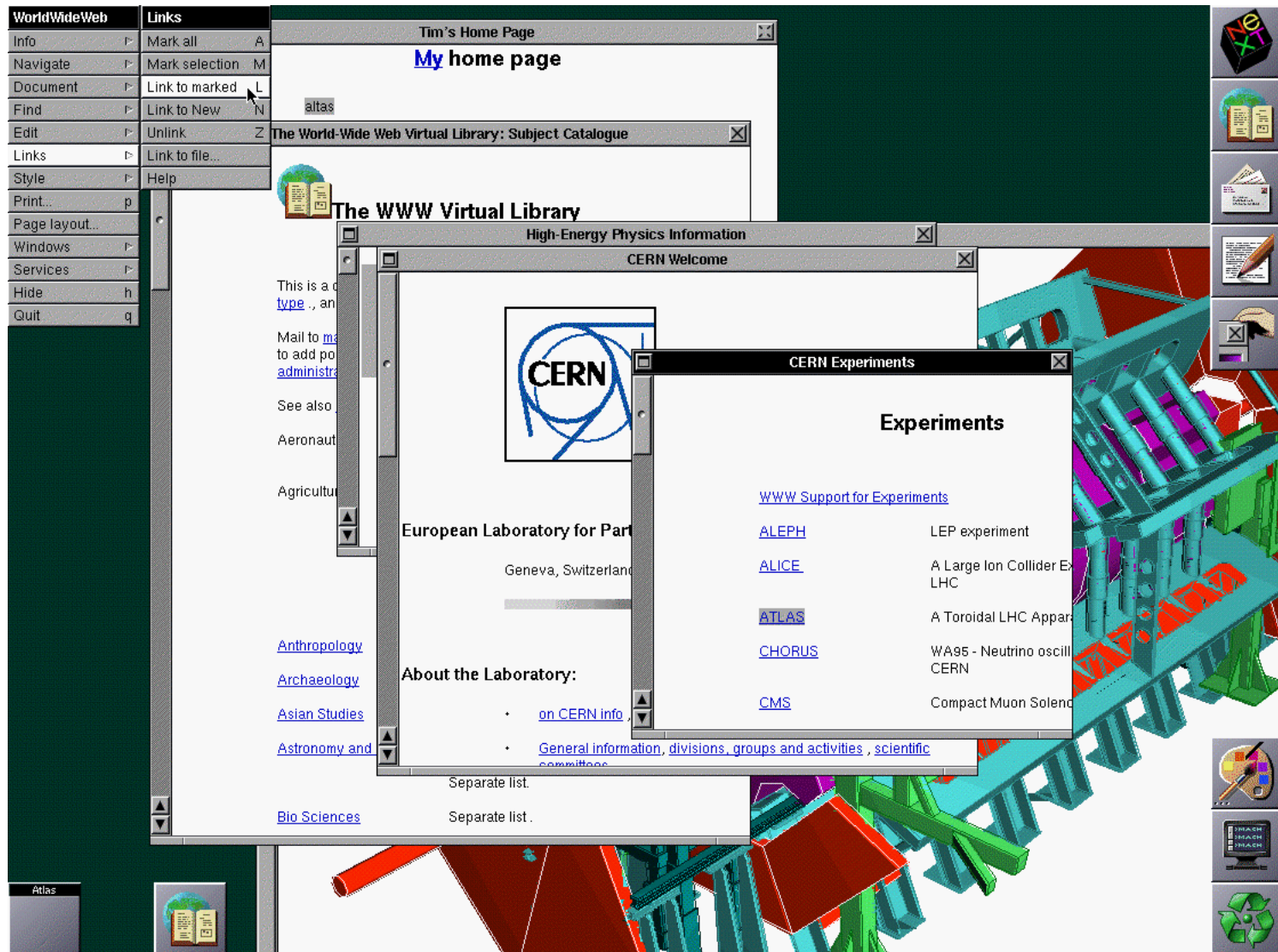
- **The World Wide Web was born** when **Tim Berners-Lee**, a researcher at CERN, the high-energy physics laboratory in Geneva, developed HyperText Markup Language.
- **HTML**, as it is commonly known, allowed the Internet to expand into the World Wide Web, using specifications he developed such as **URL** (uniform resource locator) and **HTTP** (hypertext transfer protocol).
- Berners-Lee based the World Wide Web on Enquire, a hypertext system he had developed for himself, with the aim of allowing people to work together by combining their knowledge in a global web of hypertext documents.
- With this idea in mind, Berners-Lee designed **both the first World Wide Web server and browser -- available to the general public in 1991.**

First web server address: info.cern.ch

- Berners-Lee founded the **W3 Consortium**, which coordinates World Wide Web development.
www.w3c.org. Active in **semantic web** project



1990 :TBL browser, runs on NeXT



1990 WWW taustaks: mis oli ja mis ei

- **Oli selleks ajaks:**
 - Hulk aega olemas olnud internet
 - Email, ftp, gopher ja muud failivahetussüsteemid internetis
 - Apple'i HyperCard (umbes nagu html, aga ühe masina piires)
- **Ja olid varased ideed, mida ei realiseeritud:**
 - Vannevar Bushi ideed aastast 1945, Doug Engelbarti klassikaline demo 1960-datest (hiir, aknad, koostöö üle võrgu)
 - Ted Nelsoni poolik projekt Xanadu (aastast 1965)
- **Berners Lee** aga **programmeeris ideed praktiliselt kokku**, tehes lihtkasutajate jaoks väga mugava süsteemi. HTML on väga lihtne!

1990: GNU UNIX almost complete

- 1990, the **GNU system was almost complete**; the only major missing component was the **kernel**.
- It was decided to implement the kernel as a collection of server processes running on top of **Mach**. Mach is a microkernel developed at Carnegie Mellon University and then at the University of Utah. The start of development was delayed as people waited for Mach to be released as free software, as had been promised.

1990: MS and IBM end cooperation

- Microsoft shipped **Windows 3.0** on May 22.
- IBM and Microsoft end cooperative work on operating systems, dividing up work-to-date between them, in a series of cross-licensing agreements.
 - Microsoft will work on Windows, DOS, and a portable version of OS/2.
 - IBM will continue development of 16-bit and 32-bit versions of OS/2.

1990: Internetiotsake Eestis: e-post, USENET

- Tampere tehnikaülikoolist laenuks saadud moodemi **Robotics Courier V.32** abil panid Küberneerika Instituudi teadurid Aleksander Shmundak, Mari Kõpp ja Leonid Tomberg käima regulaarse ühenduse oma instituudi ja soome UNIXI-kasutajate seltsi (FUUG) masina vahel.
- Küberneetika Instituudi arvuti **helistas iga poole tunni tagant Soome arvutisse ja saatis edasi ning võttis vastu vahepeal saabunud e-teated (põhiliselt e-posti).**
- Ca 400 rubla eest kuus said Eesti-poolsed kliendid ennast oma moodemi abil Küberneetika Instituudi arvuti külge haakida ning samuti e-posti saata.
- Küberneetika instituudi e-posti aadressi lõpus oli .su, mis tähendas mõistagi NSVL-i.

- Linus Torvalds, a student at the University of Helsinki in Finland, starts working as a hobby on **Linux**. Linus had an interest in **Minix**, a small UNIX system created by Tannenbaum, and decided to develop a system that exceeded the Minix standards. He began his work in 1991 when he released version 0.02
- Linus used both Minix and Gnu for his work: **essentially, Linux is a Minix-inspired kernel for Gnu.**



- Microsoft changes the name of **OS/2 v3.0** to **Windows NT**.
- First **Civilization** game released: Sid Meier and Bruce Shelley for Microprose



- **Microsoft stock reaches US\$113/share**, making Bill Gates the richest man in the United States.
- In the second year of the **RS/6000** line, IBM has sold US\$2 billion worth.
- Microsoft launches its first TV advertising campaign, for Windows.
- **Microsoft buys Fox Software** for 1.36 million shares of Microsoft's common stock, valued at US\$17. million.
- **IBM ships OS/2 2.0.** It requires an Intel 386 processor, 4 MB RAM, and adds WIN-OS/2 3.0 for Windows 3.0 compatibility. Code name during development was Cruiser.
- **Microsoft ships Windows 3.1.** 1 million copies of the new and upgrade versions are sold through retail channels within the first 50 days.
- **IBM and Microsoft sign a "divorce" document**, allowing source code sharing for current versions operating systems up to September 1993.

1992: GSM mobile networks: first providers

- **1982** Nordic Telecom and Netherlands PTT propose to [CEPT](#) (Conference of European Post and Telecommunications) the development of a new digital cellular standard that would cope with the ever a burgeoning demands on European mobile networks.
- **1982** The European Commission (EC) issues a directive which requires member states to reserve frequencies in the 900 MHz band for GSM to allow for roaming.
- **1987** 13 operators and administrators from 12 areas in the CEPT GSM advisory group sign the charter GSM (Groupe Spéciale Mobile) MoU "Club" agreement, with a launch date of 1 July **1991**. GSM spec drafted.
- **1990** Phase 1 GSM 900 specifications are frozen. First GSM World congress in Rome with 650 Participants
- **1992 January** - First GSM network operator is **Oy Radiolinja Ab** in Finland.
- **1992 December** - 13 networks on air in 7 areas. GSM World Congress Berlin - 630 Participants

1992: Pärisk TCP/IP internetiotsad Eestis

- Lippmaa organiseerimisel rajas **KBFI** kaks kallist **satelliidi**-otseliini TCP/IP (päris internet) jaoks: Tallinn(KBFI)-Stockholm(KTH) ja Tartu(Biokeskus)-Stockholm.
- Ants Wörk **Küberneetika Instituudist** organiseeris interneti-välisühenduse **kaablitpidi** Helsingisse.
- KBFI satelliidiühendus sai valmis kuu aega enne Küberneetika Instituudi kaabliühendust: Tõelise Interneti käimapaneku juures **1992. aasta märtsis** viibisid paar rootslast ja eesti poolelt Andres Bauman, Jaak Lippmaa ning Toomas Kadarfik.
- Kuivõrd KBFI uus interneti-ots sai valmis enne Küberneetika Instituudi oma, hankisid nemad Eestile Soviet Unioni .su-st erineva interneti aadressi **.ee** ja hakkasid Eesti-sisest internetti administreerima.
- Nii Küberneetika Instituudi kui KBFI-Biokeskuse ühendused elasid välisfinantsidest, ning olid ette nähtud akadeemilistele kasutajatele.

1992: Wolfenstein 3d and later



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- **Wolfenstein 3D** was originally released for DOS in **1992** by **ID Software**. Main authors: Carmack & Romero. It is the first popular 3D first-person shooter.
- Wolfenstein 3D is followed by **Doom**, also by ID software.
- **Quake 2** released **1997** by ID software. Features support for the **3D graphics processor** called **Voodoo** by **3dfx**, released same year. **Full 3d** in real time achieved in Quake!
- After a while, a large number of 3D games appear, assuming special **3D graphics instruction processors** on user's computers: speed graphical programs up hundreds of times
- In 2002, Nvidia buys 3dfx. **Nvidia** and **ATI** emerge as dominant 3D graphics processor makers.
- In 2006, **AMD** buys **ATI**
- **Intel** is active in low-mid-range graphics chips

